Amendments to the Claims:

This listing of Claims will replace all prior versions, and listings, of claims in the application where added material is shown in <u>underlined type</u>, deleted material is shown in ~~strikeout type~~ or within double brackets

Listing of Claims:

1.   (Currently amended) A method of extracting data of interest from <u>at least one web site of</u> a plurality of web sites, <u>wherein the data of interest is information associated with a product,</u> the method comprising:

(A) for each respective web site W in said plurality of web sites,

(i) creating a respective description of data of interest that identifies the web site W;

(ii) developing an extraction pattern from a web page output from the respective web site W using a graphical user interface tool, the extraction pattern being adapted to identify at least a portion of an output of a web site and to extract information from a plurality of web pages of the respective web site W, wherein the extraction pattern comprises a regular expression; and

(iii) associating the developed extraction pattern with the respective description of data of interest for the respective web site W;

(B) receiving a value for use as an extraction parameter for the developed extraction patterns; and

(C) obtaining said data of interest by querying <u>the at least one web site of</u> ~~web sites in~~ the plurality of web sites using the value and the extraction patterns associated with the respective descriptions of data of interest[[,]]<u>; and</u>

<u>(D) extracting said data of interest from the at least one web site of the plurality of web sites and storing said extracted data of interest</u> ~~wherein~~

~~when the data of interest includes data of interest from at least two web sites of the plurality of web sites, the data of interest from the at least two web sites is extracted.~~

2.   (Previously Presented) The method of claim 1, wherein the graphical user interface tool includes a web browser.

3.   (Canceled)

4.   (Previously Presented)   The method of claim 2, further comprising:

applying the extraction pattern to the output of the web site that is displayed in a source view in the web browser thereby identifying the at least a portion of the output for the web site; and

displaying a rendered version of the at least a portion of the output of the web site.

5.   (Previously Presented)   The method of claim 2, wherein the graphical user interface tool further includes a plurality of predefined extraction patterns.

6.   (Previously Presented)   The method of claim 5, wherein the plurality of predefined extraction patterns includes at least one of an extraction pattern for matching a hyperlink, an extraction pattern for matching a form, and an extraction pattern for matching a price.

7.   (Previously Presented)   The method of claim 2, wherein the graphical user interface tool further allows:

identifying a form in the output of the respective web site;

submitting the form while creating the description of data of interest corresponding to the web site without retrieving the web site;

generating a plurality of parameters corresponding to an input in the form; and

associating a parameter in the plurality of parameters with the extraction parameter.

8.   (Canceled)

9.   (Previously Presented)   The method of claim 1, wherein the developing an extraction pattern includes receiving a selection of an extraction command from a predetermined list of extraction commands.

10.   (Previously Presented)   The method of claim 9, wherein the predetermined list of extraction commands includes an extraction command for retrieving multiple matches of an extraction pattern from a web site.

11.   (Previously Presented)   The method of claim 9, wherein the predetermined list of extraction commands includes an extraction command for extracting data from a first web site and a second web site, the first web site including a reference to the second web site.

12.   (Previously Presented)   The method of claim 9, further including applying a test condition comprising a logical test for at least one corresponding argument, and wherein the respective description of data of interest continues executing when the logical test is satisfied.

13.   (Original)   The method of claim 12, wherein the at least one corresponding argument includes an extraction pattern.

14.   (Previously Presented)   The method of claim 12, wherein the test condition further comprises a result code that returns an error when the output of the respective web site has changed.

15.   (Previously Presented)   The method of claim 12, wherein the test condition further comprises a result code that returns an error when the output of the respective web site has no information about the product.

16.   (Previously Presented)   The method of claim 9, wherein the predetermined list of extraction commands includes an extraction command for segmenting the output of the respective web site into a plurality of units, each of the plurality of units matching the extraction pattern.

17.   (Previously Presented)   The method of claim 16, wherein the developing an extraction pattern includes using an extraction command to segment the web page output of the respective web site into a plurality of units, and using a test condition that comprises a logical test and at least one argument, and wherein for each of the plurality of units, the logical test is computed with the at least one argument, and the unit is removed from the plurality of units if the logical test is not satisfied with the at least one argument.

18.   (Currently amended)   An apparatus for extracting information of interest from at least one web site of a plurality of web sites, the apparatus comprising:

        (A) for each respective web site W in the plurality of web sites,

(i) means for creating a respective description of data of interest that identifies the web site W;

(ii) means for developing an extraction pattern from a web page output from the respective web site W using a graphical user interface tool, the extraction pattern being adapted to extract data from a plurality of web pages of the web site, wherein the extraction pattern comprises a regular expression; and

(iii) means for associating the developed extraction pattern with the respective description of data of interest for the respective web site W;

(B) means for receiving a value for use as an extraction parameter in the developed extraction patterns; and

(C) means for obtaining said data of interest by querying <u>the at least one web site of</u> ~~web sites in~~ the plurality of web sites using the value and the developed extraction patterns associated with the respective descriptions of data of interest[[,]]<u>; and</u>

<u>(D) means for extracting said data of interest from the at least one web site of the plurality of</u> <u>web sites and storing said extracted data of interest</u> ~~wherein~~

~~when the data of interest includes data from at least two web sites of the plurality of web~~ ~~sites, the means for obtaining said data of interest provides the data of interest from the at least two~~ ~~web sites.~~

19.   (Previously Presented)   The apparatus of claim 18, wherein the means for developing an extraction pattern includes means for selecting an instruction from a predetermined list of instructions.

20.   (Previously Presented)   The apparatus of claim 18, wherein the graphical user interface tool comprises a web browser.

21.   (Previously Presented)   A computer data signal embodied in a carrier wave comprising:

(A) a software module for creating a description of data of interest, the software module including;

(i) a set of operations for interactively developing an extraction pattern from a web page output of a target web site using a graphical user interface tool, the developed extraction

11209884.4

pattern being adapted to extract data of interest from a plurality of web pages of the target web site, wherein the extraction pattern comprises a regular expression;

(ii) a set of operations for receiving a selection of an instruction from a predefined set of instructions for inclusion in the description of data of interest;

(iii) a set of operations for associating the extraction pattern with the instruction;

(iv) a set of operations for testing the instruction using the extraction pattern and the contents of a buffer, wherein the buffer includes a portion of the web page output of the web site associated with the description of data of interest; and

(B) a software module for using the description of data of interest to obtain data of interest from the target web site when a value for use as an extraction parameter for the developed extraction pattern is provided.

22.   (Canceled)

23.   (Currently amended)   A method of extracting data of interest from at least one of a plurality of web sites, wherein the data of interest is information associated with a product, the method comprising:

(A) for each respective web site W in said plurality of web sites,

(i) creating a respective description of data of interest that identifies the web site W;

(ii) developing an extraction pattern from a web page output from the respective web site W using a graphical user interface tool, the extraction pattern being adapted to identify at least a portion of an output of a web site and to extract information from a plurality of web pages of the respective web site W, wherein the extraction pattern comprises a pre-condition regular expression, a portion of data of interest regular expression, and a post-condition regular expression, said developing an extraction pattern comprising refining at least one of said pre-condition regular expression, said portion of data of interest regular expression, and said post-condition regular expression; and

(iii) associating the developed extraction pattern with the respective description of data of interest for the respective web site W;

(B) receiving a value for use as an extraction parameter for the developed extraction patterns; and

(C) obtaining the data of interest by querying <u>the at least one web site of</u> ~~web sites in~~ the plurality of web sites using the value and the extraction patterns associated with the respective descriptions of data of interest[[,]]<u>; and</u>

<u>(D) extracting said data of interest from the at least one web site of the plurality of web sites</u> <u>and storing said extracted data of interest</u> ~~wherein~~

~~when the data of interest includes data of interest from at least two web sites of the plurality~~ ~~of web sites, the data of interest from the at least two web sites is extracted.~~

24.　　(Previously Presented)　The method of claim 23 wherein said portion of data of interest regular expression includes a variable that is replaced with the value.

25.　　(Previously Presented)　The method of claim 1 wherein the data of interest is provided incrementally as it is obtained from the plurality of web sites.

26.　　(Previously Presented)　The method of claim 1 wherein, the data of interest is obtained from the plurality of web sites and then presented simultaneously.

27.　　(Currently amended)　An apparatus for extracting information of interest from <u>at</u> <u>least one of</u> a plurality of web sites, the apparatus comprising:

(A) for each respective web site W in the plurality of web sites,

(i) means for creating a respective description of data of interest that identifies the web site W;

(ii) means for developing an extraction pattern from a web page output from the respective web site W using a graphical user interface tool, the extraction pattern being adapted to extract data from a plurality of web pages of the web site, wherein said extraction pattern comprises a pre-condition regular expression, a portion of data of interest regular expression, and a post-condition regular expression, said means for developing comprising refining at least one of said pre-condition regular expression, said portion of data of interest regular expression, and said post-condition regular expression; and

(iii) means for associating the developed extraction pattern with the respective description of data of interest for the respective web site W;

(B) means for receiving a value for use as an extraction parameter in the developed extraction patterns; and

(C) means for obtaining said data of interest by querying <u>the at least one web site of</u> ~~web sites in~~ the plurality of web sites using the value and the developed extraction patterns associated with the respective descriptions of data of interest,

<u>(D) means for extracting said data of interest from the at least one web site of the plurality of web sites and storing said extracted data of interest</u>

~~wherein, when the data of interest includes data from at least two web sites of the plurality of web sites, the means for obtaining said data of interest provides the data of interest from the at least two web sites.~~

28.   (Previously Presented)   A computer data signal embodied in a carrier wave comprising:

(A) a software module for creating a description of data of interest, the software module including;

(i) a set of operations for interactively developing an extraction pattern from a web page output of a target web site using a graphical user interface tool, the developed extraction pattern being adapted to extract data of interest from a plurality of web pages of the target web site, wherein said extraction pattern comprises a pre-condition regular expression, a portion of data of interest regular expression, and a post-condition regular expression, said operations for interactively developing comprising refining at least one of said pre-condition regular expression, said portion of data of interest regular expression, and said post-condition regular expression;

(ii) a set of operations for receiving a selection of an instruction from a predefined set of instructions for inclusion in the description of data of interest;

(iii) a set of operations for associating the extraction pattern with the instruction;

(iv) a set of operations for testing the instruction using the extraction pattern and the contents of a buffer, wherein the buffer includes a portion of the web page output of the web site associated with the description of data of interest; and

(B) a software module for using the description of data of interest to obtain data of interest from the target web site when a value for use as an extraction parameter for the developed extraction pattern is provided.

29.   (Previously Presented)   The method of claim 1 wherein the data of interest is information associated with a product or information associated with a service.

30.   (Previously Presented)   The apparatus of claim 18 wherein the data of interest is information associated with a product or information associated with a service.

31.   (Previously Presented)   The computer data signal of claim 21 wherein said data of interest is a product, information, or a service.

32.   (Currently amended)   A computer implemented method of obtaining data of interest from at least one web site of a plurality of web sites comprising:

(A) developing a description of data of interest for each web site in said plurality of web sites from web page output from the plurality of web sites using a graphical user interface tool that includes a web browser, each respective description of data of interest specifying an address for a corresponding web site in the plurality of web sites and each respective description of data of interest including an extraction pattern adapted to identify at least a portion of the output of a web site and to extract user specified information from a plurality of web pages of the corresponding web site, wherein the extraction pattern comprises a regular expression;;

(B) receiving a value for use as an extraction parameter for the developed extraction patterns; and

(C) obtaining said data of interest by querying the at least one web site of ~~web sites in~~ the plurality of web sites using the value and the extraction patterns in the respective descriptions of data of interest.

33.   (Currently amended)   A computer implemented method of obtaining data of interest from at least one web site of a plurality of web sites comprising:

(A) developing a description of data of interest for each web site in said plurality of web sites from web page output from the plurality of web sites using a graphical user interface tool that includes a web browser, each respective description of data of interest specifying an address for a corresponding web site in the plurality of web sites and each respective description of data of interest including an extraction pattern adapted to identify at least a portion of the output of a web site and to extract user specified information from a plurality of web pages of the corresponding

web site, wherein each said extraction pattern comprises a pre-condition regular expression, a portion of data of interest regular expression, and a post-condition regular expression, said developing a description of data of interest comprising refining at least one of said pre-condition regular expression, said portion of data of interest regular expression, and said post-condition regular expression;

(B) receiving a value for use as an extraction parameter for the developed extraction patterns; and

(C) obtaining said data of interest by querying the at least one web site of ~~web sites in~~ the plurality of web sites using the value and the extraction patterns in the respective descriptions of data of interest.

34.   (Previously Presented)   The computer implemented method of claim 32 wherein said data of interest is a product, information, or a service.

35.   (New)   The method of claim 1, wherein when the data of interest includes data of interest from at least two web sites of the plurality of web sites, the data of interest from the at least two web sites is extracted.

36.   (New)   The apparatus of claim 18, wherein when the data of interest includes data of interest from at least two web sites of the plurality of web sites, the data of interest from the at least two web sites is extracted.

37.   (New)   The method of claim 23, wherein when the data of interest includes data of interest from at least two web sites of the plurality of web sites, the data of interest from the at least two web sites is extracted.

38.   (New)   The apparatus of claim 27, wherein, when the data of interest includes data from at least two web sites of the plurality of web sites, the means for obtaining said data of interest provides the data of interest from the at least two web sites.